

**WHAT IS CLAIMED IS:**

- Sub A4
1. A system of software components adapted to display an object created by an application program running under an operating system, wherein selection of either a first or a second of the system of software components as the source for the graphical representation of the object can be made during runtime, and wherein the appearance of the displayed object is substantially independent of the operating system.
2. The system as recited in claim 1, wherein the object is part of a graphical user interface associated with the application program.
3. The system as recited in claim 1, wherein selection of the first or second of the system of software components is made by the application program.
4. The system as recited in claim 3, wherein an instance of the first or second of the system of software components is created during runtime, when selected by the application program.
5. The system as recited in claim 4, wherein an instance of the first or second of the system of software components previously selected by the application program is destroyed when the instance is no longer selected.
6. The system as recited in claim 1, wherein the appearance and behavior of the object differ depending on whether the object is displayed by the first or the second of the system of software components.
7. The system as recited in claim 1, wherein the application program is written in Java programming language.

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8. The system as recited in claim 1, wherein the set of software components comprises the Swing application program interface (API).

9. The system as recited in claim 1, wherein the operating system comprises a Windows, Unix or OS/2 computer operating system.

10. The system as recited in claim 6, wherein the first of the system of software components is the TextField component, and the second of the system of software components is the PasswordField component.

11. The system as recited in claim 1, wherein selection of either the first or second of the system of software components depends on the status of a software flag associated with the object.

12. The system as recited in claim 11, wherein the object is adapted to respond to text entry events and wherein the status of the software flag indicates whether or not a special character is echoed when text is entered.

13. A method for displaying an object created by an application program running under an operating system, using at least one of a system of software components invoked during runtime and adapted to generate a graphical representation of the object that is substantially independent of the operating system, the method comprising:

activating a first software component to generate a first graphical representation of the object;

monitoring the mode of use of the object; and

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upon detecting a change in the mode of use of the object, deactivating the first component and activating a second component to generate a second graphical representation of the object, distinct from the first.

14. The method as recited in claim 13, wherein the object is part of a graphical user interface associated with the application program.

15. The method as recited in claim 13, further comprising selecting the first or second of the system of software components by the application program.

16. The method as recited in claim 15, further comprising creating an instance of the first or second of the system of software components during runtime, when selected by the application program.

17. The method as recited in claim 16, further comprising destroying an instance of the first or second of the system of software components previously selected by the application program when it is no longer selected.

18. The method as recited in claim 13, further comprising varying the appearance and behavior of the object, depending on whether the object is displayed by the first or the second of the system of software components.

19. The method as recited in claim 13, wherein the application program is written in Java programming language.

20. The method as recited in claim 13, wherein the set of software components comprises the Swing application program interface (API).

21. The method as recited in claim 20, wherein the first of the system of software components is the TextField component, and the second of the system of software components is the PasswordField component.
22. The method as recited in claim 13, wherein the operating system comprises a Windows, Unix or OS/2 computer operating system.
23. The method as recited in claim 13, further comprising selecting either the first or second of the system of software components, depending on the status of a software flag associated with the object.
24. The method as recited in claim 23, further comprising the object responding to text entry events, and the software flag indicating whether or not a special character is echoed when text is entered.
25. A computer-readable storage device, comprising:
- a windows-based operating system;
  - an application program running under the operating system;
  - an object created at runtime by the application program and adapted for multiple modes of use by the application program, wherein the application program is adapted for
    - activating a first software component to generate a first graphical representation of the object;
    - monitoring the mode of use of the object; and

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upon detecting a change in the mode of use of the object, deactivating the first component and activating a second component to generate a second graphical representation of the object, distinct from the first.

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